We claim:

1. A peptide comprising the amino acid sequence VSHGFTEQNSGLIYRGQSGGMNEAF (Sequence ID No:1) or a fragment or analogue thereof.

2. The peptide of claim 1 wherein the peptide has an amino acid sequence comprising about nine consecutive amino acids from the amino acid sequence VSHGFTEQNSGLIYRGQSGGMNEAF.

3. The peptide of claim 2 wherein the peptide is selected from the group consisting of

(a) VSHGFTEQN (Sequence ID No:2);
(b) HGFTEQNSG (Sequence ID No:3);
(c) FTEQNSGLI (Sequence ID No:4);
(d) EQNSGLIYR (Sequence ID No:5);
(e) NSGLIYRGQ (Sequence ID No:6);
(f) GLIYRGQSG (Sequence ID No:7);
(g) IYRGQSGGM (Sequence ID No:8);
(h) RGQSGGMNE (Sequence ID No:9);
(i) QSGGMNEAF (Sequence ID No:10).

4. A peptide comprising the amino acid sequence HGFTEQNSG.

5. A peptide comprising the amino sequence SGALRYMDQPSRDGRSIDM (Sequence ID No:11) or a fragment or analogue thereof.

6. The peptide of claim 5 wherein the peptide has an amino acid sequence comprising about nine consecutive amino acids from the amino acid sequence SGALRYMDQPSRDGRSIDM.

7. The peptide of claim 6 wherein the peptide is selected from the group consisting of

(a) SGALRYMDQ (Sequence ID No:12);

(b) ALRYMDQPS (Sequence ID No:13);
(c) RYMDQPSRD (Sequence ID No:14);
(d) MDQPSRDGR (Sequence ID No:15)
(e) QPSRDGRSI (Sequence ID No:16);
(f) SRDGRSIDM (Sequence ID No:17).

8. A peptide comprising the amino acid sequence RYMDQPSRD.

9. An immunogenic composition comprising at least one active component selected from the group consisting of:

(a) a peptide comprising the amino acid sequence HGFTEQNSG;
(b) a peptide comprising the amino acid sequence RYMDQPSRD;
(c) a peptide comprising the amino acid sequence VSHGFTEQNSGLIYRGQSGGMNEAF;
(d) a peptide comprising the amino acid sequence SGALRYMDQPSRDGRSIDM;
(e) a fragment or analogue of a peptide of (a), (b), (c) or (d);
(f) a purified and isolated nucleic acid molecule encoding a peptide of (a), (b), (c) or (d); and
(g) a nucleotide sequence which hybridises under stringent conditions to any of the nucleic acid molecules of (f)

and a pharmaceutically acceptable carrier, said at least one active component producing an immune response when administered to a host.

10. The immunogenic composition of claim 9 formulated as a vaccine for administration to a mammal to protect the mammal against a disease caused by a bacterial pathogen which secretes a zinc metalloprotease.

11. The immunogenic composition of claim 10 wherein the bacterial pathogen secretes a thermolysin-like

metalloprotease.

12. The immunogenic composition of claim 10 wherein the mammal is to be protected against a disease caused by a pathogen selected from the group consisting of *P. aeruginosa, B. cepacia, Vibrio cholerae, V. vulnificus, Legionella pneumophila, Serratia marcescens, Bacillus anthracis, Clostridium tetani, Clostridium botulinum, Aeromonas hydrophila, Staphylococcus epidermidis, Staphylococous aureus, Streptococcus sanguis, Streptococcus faecalis, Lysteria monocytogenes,* and *Pasteurella haemolytica.*

13. The immunogenic composition of claim 12 wherein the at least one active component is selected from the group consisting of

(a) the peptide HGFTEQNSG;
(b) the peptide RYMDQPSRD; and
(c) a mixture of the peptide HGFTEQNSG and the peptide RYMDQPSRD.

14. The immunogenic composition of claim 13 wherein the peptide is conjugated to a carrier protein.

15. The immunogenic composition of claim 14 wherein the carrier protein is selected from the group consisting of keyhole limpet haemocyanin, diphtheria toxoid, diphtheria toxin CRM197, tetanus toxoid, *P. aeruginosa* exotoxin A mutant form, cholera toxin B subunit, pertussis toxin subunits, measles virus F protein and Haemophilus PRP outer membrane protein.

16. A method of protecting a susceptible host against a disease caused by a bacterial pathogen which secretes a zinc metalloprotease, said method comprising administering to the host an effective amount of the immunogenic composition of claim 9.

17. The method of claim 16 wherein the bacterial pathogen is selected from the group consisting of *P. aeruginosa, B. cepacia, Vibrio cholerae, V. vulnificus, Legionella pneumophila, Serratia marcescens, Bacillus anthracis, Clostridium tetani, Clostridium botulinum, Aeromonas hydrophila, Staphylococcus epidermidis, Staphylococous aureus, Streptococcus sanguis, Streptococcus faecalis, Lysteria monocytogenes,* and *Pasteurella haemolytica.*

18. The method of claim 17 wherein the host is a human.

19. A method of protecting a susceptible host against a disease caused by a bacterial pathogen which secretes a zinc metalloprotease, said method comprising administering to the host an effective amount of the immunogenic composition of claim 13.

20. The method of claim 19 wherein the bacterial pathogen is selected from the group consisting of *P. aeruginosa, B. cepacia, Vibrio cholerae, V. vulnificus, Legionella pneumophila, Serratia marcescens, Bacillus anthracis, Clostridium tetani, Clostridium botulinum, Aeromonas hydrophila, Staphylococcus epidermidis, Staphylococous aureus, Streptococcus sanguis, Streptococcus faecalis, Lysteria monocytogenes,* and *Pasteurella haemolytica.*

21. The method of claim 20 wherein the host is a human.

22. An antibody or antiserum specific for a peptide selected from the group consisting of

(a) VSHGFTEQNSGLIYRGQSGGMNEAF;

(b) SGALRYMDQPSRDGRSIDM;

(c) HGFTEQNSG;

(d) RYMDQPSRD; and

(e) a fragment or analogue of a peptide of (a), (b), (c) or (d).

23. A purified isolated nucleic acid molecule encoding a peptide selected from the group consisting of

(a) VSHGFTEQNSGLIYRGQSGGMNEAF;

(b) SGALRYMDQPSRDGRSIDM;

(c) HGFTEQNSG;

(d) RYMDQPSRD; and

(e) a fragment or analogue of a peptide of (a), (b), (c) or (d).

24. A method of producing a vaccine comprising administering the immunogenic composition of claim 9 to a test host to determine an amount and a frequency of administration of the active component to confer protection against a disease caused by a bacterial pathogen which secretes a zinc metalloprotease, and formulating the active component in a form suitable for administration to a host to be treated in accordance with said determined amount and frequency of administration.